Madroño, Vol. 46, No. 2, pp. 112–114, 1999

NOTEWORTHY COLLECTIONS

Arizona

Cryptantha dumetorum (Greene ex A. Gray) Greene (Boraginaceae).—Mohave Co., Sacramento Wash, ahout 1 mi. northwest of Yucca. In gravelly sand of broad desert wash with *Larrea tridentata, Acacia greggii, Tessaria sericea,* etc. T17N, R19W, 34°54′N, 114°10′W, elev. 1700 ft, 2 April 1998, Brasher 2986, ASU.

Previous knowledge. This species is known from southeastern California, southern Nevada, and southwestern Utah flanking Mohave Co. on two sides and approaching very closely at Needles, CA.

Significance. Cryptantha dumetorum has long been assumed to be in Mohave, Co., AZ (Kearney & Peebles, *Arizona Flora,* 1951; Higgins, *Great Basin Naturalist* 39(4):293–350, 1979) but never documented until now; thus this collection is an anticipated state record and the first collection east of the Colorado River.

—Jeffrey W. Brasher, Herbarium, Department of Plant Biology, Box 871601, Arizona State University, Tempe, AZ 85287.

California

Dicentra chrysantha (Hook. & Arn.) Walp. (Papaveraceae).—Inyo Co., Coso Range, canyon ca. 1.2 km W of Silver Pk., 36°09′N, 117°43′W, alt. 2000–2135 m, brushy pinyon woodland with *Pinus monophylla* Torrey & Frémont, *Chrysothamnus nauseosus* (Pallas) Britton, *Artemisia tridentata* Nutt., *Ceanothus greggii* A. Gray, etc., one colony on dry wash bank near springs with *Forestiera pubescens* Nutt., 12 Oct 1997, *A. C. Sanders et al. 21579* (RSA, UCR); Moist soil at Wild Horse Spg., 2006 m, USGS Coso Pk. Quad., T21S R39E NE 1/4 sec. 1, 21 Jul 1974, *R. L. Zembel, CHSA* 349 (RSA).

Previous knowledge. In chaparral on coastal slope of California from Baja California north to the northwest coast (P. A. Munz, A Flora of Southern California, 1974; C. Clark, in Hickman (ed.), The Jepson Manual, Higher Plants of California, 1993), but not reported from the Mojave Desert in these or any other available flora (e.g., M. DeDecker, Flora of the Northern Mojave Desert, California, 1984; E. Jaeger, Desert Wildflowers, 1941; R. F. Thorne, et al., Aliso 10:71–186, 1981; R. Stone and V. Sumida (eds.), The Kingston Range of California: A Resource Survey, Publ. 10, UC Santa Cruz Env. Field Prog., 1983).

Significance. First records of the species from the Mojave Desert, Coso Range and Inyo County. A range extension of ca. 70 km ENE from the upper Kern River drainage on the W slope of the Sierra Nevada. The species also occurs on the desert slope of the southern Sierra, but farther south, near Butterbredt Peak in Kern County. Other chaparral associated species occur in the higher ranges of the Mojave Desert, some even crossing the desert and appearing in Arizona. This record suggests that *Dicentra* should be added to the list of taxa that occurred on what is now the Mojave Desert during the Pleistocene when woodland communities were widespread (P. Raven and D. Axelrod, Origin and Relationships of the California Flora, Univ. of California Publ. Botany 72, 1978.) *Dicentra chrysantha* should be sought at additional localities in eastern Kern and western Inyo counties.

Euphorbia abramsiana Wheeler [*Chamaesyce abramsiana* (Wheeler) Koutnick] (Euphorbiaceae).—San Bernardino Co., Providence Mtns., Eastern Mojave Desert, road over Foshay Pass, E side of range, 9.2 km E of Essex Road, rocky, andesitic? slopes with *Larrea, Ferocactus, Yucca schidigera* K. E. Ortgies, *Opuntia acanthocarpa* Engelm. & J. Bigelow, *Bouteloua barbata* Lagasea, 3 Oct 1990, *Steve Boyd 5176* (RSA); Pass between Vontrigger Hills and Hackberry Mtns., E side of Lanfair Rd., 18 km N of jtn with Goffs Rd., scrub vegetation with *Larrea, Opuntia acanthocarpa, Acacia greggii* A. Gray, *Bouteloua barbata, Bouteloua aristidoides* (Kunth) Griseb. 4 Oct 1990, *Steve Boyd 5191A* (RSA).

Previous knowledge. Known from the southeastern corner of the Colorado Desert in California (Imperial Co.), eastward into Arizona and southward in western Mexico to Sinaloa (L. C. Wheeler, Rhodora 43:97–154, 168–286, 1941; J. C. Hickman, *loc. cit.*; P. A. Munz, *loc. cit.*).

Significance. First reports for the Mojave Desert and San Bernardino County. This species is among a suite of California desert taxa which have been documented infrequently and are closely associated with exceptional summer and early fall precipitation. These include *Euphorbia exstipulata* Engelm., *Munroa squarrosa* (Nutt.) Torrey, *Nama dichotomum* (Ruiz Lopez & Pawn) Choisy, *Portulaca halimoides* L., *Sanvitalia abertii* A. Gray, and *Schkuhria multiflora* Hook. & Arn. Late season precipitation in the eastern Mojave Desert was particularly heavy in 1990.

Holocarpha heermannii (E. Greene) Keck (Asteraceae).—Los Angeles Co., Liebre Mountains region, north base of Portal Ridge along the Broad Canyon Motorway, east of the mouth of Broad Canyon, edge of the Antelope Valley, near 34°43′11.3″N, 118°27′12.2″W, T7N R15W NE1/4 SW1/4 SE1/4 sec. 3, elev. 940–951 m, gently rolling hills with deep sandy loam at interface between grassland and scrub, vegetation a relatively open scrub of *Pinus sabiniana* Douglas, *Adenostoma fasciculatum* Hook & Arn., *Quercus john-tuckeri* K. Nixon & C. H. Muller, *Eriogonum fasciculatum* (Benth.) Torrey & A. Gray, and *Chrysothamnus nauseosus* (Pallas) Britton, grading into xeric grassland with *Stipa speciosa* Trin. & Rupr., *Poa secunda* J. S. Presl, *Melica imperfecta* Trin., *Bromus* spp., *Avena* spp., and *Corethrogyne filaginifolia* (Hook & Arn.) Nutt., 18 Jun 1997, *Steve Boyd & Lauren Raz 9984* (RSA).

Previous knowledge. Known from the foothills surrounding the southern half of the Central Valley, generally in grassy habitats below 1300 m (P. A. Munz & D. D. Keck, A California Flora, 1959; L. Abrams & R. S. Ferris, Illustrated Flora of the Pacific States Vol. IV, 1960; J. C. Hickman, *loc. cit.*).

Significance. First report from within the Mojave Desert region (Antelope Valley) and first record for Los Angeles County.

—Steve Boyd, Herbarium, Rancho Santa Ana Botanic Garden 1500 N. College Avenue, Claremont, CA 91711 and Andrew C. Sanders, Herbarium, Dept. of Botany and Plant Sciences, University of California, Riverside, CA 92521-0124.

Chloris truncata R. Br. (Poaceae).—Riverside Co., Perris, Nuevo Rd. at edge of irrigated alfalfa field, just east of San Jacinto River crossing, T4S R3W S28, 33°48′N, 117°12′W, 435 m alt., common in plowed field, most plants not yet mature, 22 Sep 1996, *S. D. White 4535A* (UCR); Temecula area, Borel Rd., 0.2 km W of turnoff to Lake Skinner, T7S R2W S13, 33°34′N, 117°02′W, vinyard weed, alt. 488 m, 26 Mar 1997, *A. C. Sanders 20095* (UCR); Lake Skinner area, large clay patch adjacent to entrance park road, 1 km NE of Borel Rd., T7S R1W S7, 33°34.5′N, 117°02′W, gentle N-facing slope with grassland and coastal sage scrub, assoc. with *Lotus humistratus* E. Greene, *L. hamatus* E. Greene, *Harpagonella palmeri* A. Gray, *Plantago erecta* E. Morris, *Convolvulus simulans* Perry, *Trifolium albopurpureum* Torrey & A. Gray, etc., common on roadside, all plants within 3 dm of pavement, alt. 500 m, 26 Mar 1997, *A. C. Sanders 20138* (UCR).

Previous knowledge. An introduced weed from Australia, first reported in North America and California from a collection made in 1995 in a vinyard in Temecula, Riverside Co. (Sanders, Madroño 43:524–532, 1996).

Significance. These records extend the range of this recently reported weed about 28 km to the NNW, add additional localities in the Temecula vinyard district, and (document the occurrence of this species in a natural area), thus further demonstrating that it is a well-established member of the California flora. The two locations near Lake Skinner are 3–5 km NE of the original California locality.

Galium parisiense L. (Rubiaceae).—Los Angeles Co., Rancho Santa Ana Botanic Garden [Claremont], 2 May 1972, *C. W. Tilforth 524* (RSA); San Gabriel Mtns., Elsmere Canyon, T3N R15W sec. 7, alt. 442–466 m, 26 Jun 1967, *L. C. Wheeler 9879* (RSA), det. V. Soza; Liebre Mountains, Castaic Creek drainage from Fish Canyon downstream to power plant, just north of upper end of Castaic Lake, near 34°36′00″N, 118°39′45″W, T6N R17W E1/2 E1/2 sec. 22, SW1/4 sec. 23, alt. 470–500 m, 23 May 1996, *S. Boyd & O. Mistretta 8816,* (RSA, UCR); Orange Co., Rancho Mission Viejo, tributary to Trampas Canyon, along Christianitos Rd., 2.4 km ESE Viejo survey mark, UTM 446500mE, 3707350mN, alt. 128 meters, 26 May 1988, *F. M. Roberts & K. Keane 4013,* (RSA), det. T. S. Ross; San Bernardino Co., San Bernardino Mtns., east side of Water Canyon, a tributary of Wildwood Canyon from the north, SW foot of Pisgah Peak, Porter Ranch, chaparral, T2S R1W SE/4 sec. 4, NE/4 sec. 9, 14 May 1993, *A. C. Sanders & E. J. Lott 14031,* (RSA, UCR); San Bernardino Mtns., Pisgah Peak Rd., 1.5 km above Oak Glen Rd., NW foot of Pisgah Peak, slopes of a wide N-draining canyon, chaparral, T1S R1W NW/4 SW/4 sec. 33, alt. 1100 m, 14 May 1993, *A. C. Sanders & E. J. Lott 14039,* (RSA, UCR); eastern San Gabriel Mtns., west fork Stoddard Canyon, ca. 1 km SE of Stoddard Flats, 100 m E of Cucamonga Truck Tr. (FS Road 1N35), Mt. Baldy quad, T1N R7W SE/16 SW/4 sec. 6, alt. 1341 m, 30 Apr. 1994, *D. Swinney 2808,* (RSA), det. R. F. Thorne; San Diego Co., 1.5 km north of Julian, oak woodland, 6 June 1979, *G. K. Helmkamp s.n.* (UCR).

Previous knowledge. A Eurasian weed, reported in California by P. A. Munz (1974, A Flora of Southern California) from Santa Barbara Co. north. E. Lathrop and R. F. Thorne (1978, Aliso 9:197–288) first reported the taxon from southern California, citing a specimen collected at the western base of the Santa Ana Mountains in Orange Co. Additional documentation from the southern Santa Ana Mtns. was provided by S. Boyd et al. (1995, Aliso 14:109–139). Oddly, the range for this plant cited by L. Dempster (1993, in J. C. Hickman, ed., The Jepson Manual: Higher Plants of California) completely excludes it from southern California.

Significance. The above collections provide additional documentation that this plant has become widespread and well established in cismontane southern California. The only coastal slope counties in southern California lacking records of this species are Riverside and Ventura.

Ranunculus testiculatus Crantz (*Ranunculaceae*).—San Bernardino Co., San Bernardino Mtns., south shore of Big Bear Lake, vernally moist clay flats with *Sidalcea pedata, A. Gray* T2N R1E, NW/4 S20, alt. 2075 m, May 1982, *T. Krantz s.n.* (UCR), det. by A. C. Sanders.

Previous knowledge. A Eurasian weed first reported for California by P. A. Munz (Supplement to A California Flora, 1968), but not reported for southern California either there or in subsequent floras (e.g., J. C. Hickman, *loc. cit.*; P. A. Munz, 1974). Recently reported from the Cuyamaca Mtns. of San Diego Co. (J. Hirshberg & D. Clemmons, Phytologia 81:69–102, 1996).

Significance. First record for San Bernardino Co. and the San Bernardino Mtns. and a second record for southern California. This distinctive species should be watched for in other southern California mountains.

—Andrew C. Sanders, Herbarium, Dept. of Botany and Plant Sciences, University of California, Riverside, CA 92521-0124 and Steve Boyd, Herbarium, Rancho Santa Ana Botanic Garden 1500 N. College Avenue, Claremont, CA 91711.

Campylopus introflexus (Hedw.) Brid. (Musci) (Dicranaceae).—Marin Co., Point Reyes National Seashore, Limantour Beach, 38°02′N, 122°53′W, elev. 5 m, ca. 40 m south of the parking lot and 20 m north of the saltmarsh in the easternmost arm of Drake's Estero; a population of about 5 colonies, each less than 10 cm × 10 cm in area, associated with cryptogamic crusts at the base of a mostly barren and sandy, gentle slope. 24 April, 1999, *Terry J. O'Brien 3353* (UC).

Previous knowledge. First confirmed to occur in North America and in California from collections made in Humboldt and Mendocino counties (J.-P. Frahm, The Bryologist 83:570–588, 1980). The only specimen from Lassen Co. (Showers *1909*; in UC; transferred from HSC) also reported in the same literature, is annotated by Frahm as *Campylopus pilifer* Brid., suggesting that *C. introflexus* does not occur in this county nor far inland in California. Frahm (Dicranaceae: Campylopodioideae, Paraleucobryoideae, Flora Neotropica, No. 54, 1991) later reported that *C. introflexus* is known from California and Oregon, and first discovered in this region in 1972. One specimen in UC (Steve Selva *1*) was collected in 1971, but there are no collections prior to this year, so it appears that the species was not collected in California or elsewhere in North America before 1971. Other more recent collections of *C. introflexus* in UC are from additional localities in Mendocino Co. and Humboldt Co., and from Curry Co. in Oregon.

Significance. First record of *C. introflexus* in California from south of Mendocino Co., suggesting that the range is expanding. The species appears to be a neophyte introduced to California (J.-P. Frahm, 1980), as the natural distribution is the temperate southern hemisphere (S. R. Gradstein & H. J. M. Sipman, The Bryologist 81:114–121, 1978).

The apparent range expansion in California is a concern for species and habitat conservation along the temperate Pacific Coast. In Europe, *Campylopus introflexus* also is an introduction from the southern hemisphere, first discovered in Britain in 1941 (P. W. Richards, Trans. Brit. Bryol. Soc., 4:404–417, 1963), and has since expanded rapidly throughout much of the continent (L. Söderström, *in* Bryophytes and Lichens in a Changing Environment, J. W. Bates and A. M. Farmer, eds., 1992). In temperate regions of Europe, *C. introflexus* has a wide ecological range and is a highly effective colonist that once established is a better competitor than native species. There the substrate is primarily nonalkaline soils or roofing, and colonies are found in sites subject to human disturbance, on dunes, in heathlands, grasslands or open woodlands (R. Biermann & F. J. A. Daniels, Phytocoenologia 27:257–273, 1997; M. Equihar & M. B. Usher, J. of Ecology, 81: 359–365, 1993; Meulen, F. van der, H. van der Hagen & B. Kruijsen, Proc. K. Nederlandse Akad. van Wetenschappen, Ser. C, Biol. and Med. Sciences, 90:73–80, 1987; Richards 1963; H. Stierperaere & E. Jacques, Belg. J. Bot., 128:117–123, 1995). UC herbarium specimens indicate a similar ecological range in California and Oregon. In some natural habitats in California, such as the the pygmy forests in Mendocino Co., colonies of *C. introflexus* have formed loose carpets over patches of soil, suggesting a potential for competition with other native bryophytes or vascular plants. These observations highlight the need to closely monitor the distribution and ecology of *C. introflexus* along thc Pacific Coast, to better understand whether it is a threat to the native flora.

—Terry J. O'Brien, University Herbarium and Dept. of Integrative Biology, 3060 VLSB, University of California, Berkeley, CA 94720.